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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,298	10/10/2003	Zeenat Jetha	198821-368247	7344

27155 7590 04/10/2008
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ART UNIT	**PAPER NUMBER**
2628	

MAIL DATE	DELIVERY MODE
04/10/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/682,298
Filing Date: October 10, 2003
Appellant(s): JETHA ET AL.

Joseph P. Conneely
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief (amended) filed 04 February 2008 appealing from the Office action mailed 06 August 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Yajima et al. (US 6,523,024)

Dürsteler ("The digital magazine of InfoVis.net", 4/22/2002)

Baar et al. (US 2002/0044154)

Higgins et al. (US 2003/0052896)

Mullet et al (US 5,638,523)

Packingham et al. (US 6,985,865)

Carpendale ("A Framework for Elastic Presentation Space")

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 4, 6, 11 – 16, 20 – 23, 25, and 30 – 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. (US 6,523,024) in view of Dürsteler ("The digital magazine of InfoVis.net", 4/22/2002) and Baar et al. (US 2002/0044154) and Higgins et al. (US 2003/0052896).

Regarding independent claim 1, Yajima teaches a method for editing a multi-layer original image displayed on a display screen (Figure 19), comprising in response to receiving an indication to edit a region of said original image (column 7, line 56 – column 8, lines 9: information lens and magnifying lens functions), distorting a portion of a first layer of said original image to produce a distorted image for said region (column 7, line 56 – column 8, lines

9: the second image information is displayed in a form modified; Figure 18: the circular region corresponding to the second image information; Figure 19: the smaller rectangular region corresponding to the second image information), said distorted image including a magnified region having a magnification for said region (Figure 19: the smaller rectangular region representing a magnified view of the second image information).

Yajima did not expressly disclose the magnified region is at least partially surrounded by an at least partially compressed region where said magnification decreases to that of said original image to provide context for said magnified region with respect to said original image. Dürsteler discloses a focal region with an elevation (pg 2, see Figure towards top) and a base region (pg 2, see Figure towards top) and a shoulder region between the base region and the focal region (pg 2, see Figure towards top) and where the shoulder region is a compressed region with decrease elevation (pg 1, see second and fourth figures). Baar discloses projecting transformed layouts via a perspective projection results in a new 2D layout which includes the zoomed and compressed regions (paragraph 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yajima's system by incorporating a 3-D look of a magnified area with a compressed magnified area between the magnified area and the original image. One would be motivated to do so because this would allow users to see a continuous image of the magnified area of the original image to the original image without losing the context of the original image as a whole.

Yajima teaches overlaying said distorted image on said region (column 7, line 56 – column 8, lines 9: the second image information) in a second undistorted layer (column 7, line 56 – column 8, lines 9: the first image information) of said original image to produce an overlaid image and displaying said overlaid image on said display screen to replace display of said original image (Figure 19), said distorted image at least partially surrounded by non-overlaid portions of said second undistorted layer in said overlaid image (Figure 19).

Yajima did not expressly disclose upon completion of editing of said overlaid image, selectively propagating edits made to said first layer through to said second undistorted layer of said original image. Higgins discloses whenever a change occurs on one map, the system causes the same change to occur on the other map (paragraph 110). It would have been obvious to modify Yajima's system to modify one map and propagate changes to other maps. One would be motivated to do so because users would not have to make the same changes to multiple maps.

Regarding dependent claim 2, Yajima teaches applying a distortion function to said portion of said first layer by displacing said portion onto said distortion function and projecting said displaced portion onto a plane (Figure 19: second image information).

Regarding dependent claim 3, Yajima did not expressly disclose displaying a graphical user interface ("GUI") over said distorted image for receiving one or more signals for adjusting said distortion function. Dürsteler discloses multiple graphical user interface tools, such as resizing and magnification (pg 2, see Figure towards top) It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yajma's system by incorporating graphical user interface tools for adjusting the content in focus. One would be motivated to do so because this would allow users to adjust the view of the desired content.

Regarding dependent claim 4, Yajima teaches a focal region corresponding to said magnified region (Figure 19). Yajima did not expressly disclose having an elevation to provide said magnification upon said projecting onto said plane and a shoulder region corresponding to said compressed region where said elevation decreases to provide said decreasing magnification upon said projecting onto said plane and said GUI includes at least one of means for adjusting said elevation and hence said magnification, means for adjusting a degree of scooping for said distortion function, means for adjusting an extent for said focal region, means for adjusting an extent for said shoulder region, means for adjusting a location for said distortion function within said first layer, means for adjusting a location for an outline of said shoulder region within said first layer, and, means for adjusting a location for said focal region relative to said shoulder region. Dürsteler discloses a focal region with an elevation (pg 2, see Figure towards top) and a base region (pg 2, see Figure towards top) and a shoulder region between the base region and the focal region (pg 2, see Figure towards top) and where the shoulder region is a compressed region with decrease elevation (pg 1, see second and fourth figures). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yajma's system by incorporating a 3-D look of a magnified area with a compressed magnified area between the magnified area and the original image. One would be motivated to do so because this would allow users to see a continuous image of the magnified area of the original image to the original image without losing the context of the original image as a whole and allow users to adjust the view of the desired content.

Regarding dependent claim 6, Yajima teaches receiving a signal for selecting among said first and second layers (Figure 19: user being able to select any portion of the image).

Regarding dependent claim 11, Yajima teaches receiving a signal for selecting a window for display within said magnified region (Figure 19: box displaying magnified region).

Regarding dependent claim 12, Yajima teaches the window displays a portion of said second layer at said magnification (Figure 19: box displaying magnified region).

Regarding dependent claim 13, Yajima teaches the one or more signals and said indication are generated with a pointing device (Figure 18: 1017).

Regarding dependent claim 14, Yajima teaches the first and second layers are one or more of raster, vector, point, and geo-referenced data layers (Figures 18 – 20).

Regarding dependent claim 15, Yajima teaches the indication, region, portion, first layer, distorted image, and second layer includes a plurality of indications, regions, portions, first layers, distorted images, and second layers, respectively (pointer moving from one region another, creating different magnified areas, using different maps).

Regarding dependent claim 16, Yajima did not expressly disclose at least some of said means are icons. Dürsteler discloses icons (pg 2, see Figure towards top). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Yajima's system to incorporate icons. One would be motivated to do so because icons allow users to easily understand the desired function through pictures.

Regarding claims 20 – 23, 25, and 30 – 35, claims 20 – 23, 25, and 30 – 35 are similar in scope as to claims 1 – 4, 6, and 11 – 16, thus the rejections for claims 1 – 4, 6, and 11 – 16 hereinabove is applicable to claims 20 – 23, 25, and 30 – 35.

Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. (US 6,523,024) in view of Dürsteler ("The digital magazine of InfoVis.net", 4/22/2002) and Baar et al. (US 2002/0044154) and Higgins et al. (US 2003/0052896) and Mullet et al (US 5,638,523).

Regarding dependent claim 5 and 24, Yajima did not expressly disclose receiving a signal for switching among said first and second layers. Mullet discloses a toggle switch 19 can be toggled to place the browsing tool 10 in a permanent magnification mode such that the contents in viewing area 15 is always enhanced (column 6, lines 1 – 4 and Figure 3a) and a user moving the cursor 21 using the cursor control device 25 and the information within the viewing area 15 is not affected until after a predetermined amount of time (column 4, lines 39 – 50). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Yajima's system to toggle between layers. One would be motivated to do so because users may see the desired views for comparison.

Claims 7 – 10 and 26 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. (US 6,523,024) in view of Dürsteler ("The digital magazine of InfoVis.net", 4/22/2002) and Baar et al. (US 2002/0044154) and Higgins et al. (US 2003/0052896) and Carpendale ("A Framework for Elastic Presentation Space").

Regarding dependent claims 7 – 10, Yajima did not expressly disclose receiving a signal for selecting a folded distorted image in which the magnified region is repositioned. Carpendale disclose a folded view and a non-folded view (Figures 5.9a and 5.9b). Yajima did not expressly disclose the magnified region in said folded distorted region is repositioned by folding away from an original position relative to said compressed region to accommodate said second magnified region. Carpendale discloses the folded view being moved away from the original position and accommodating both magnified views (Figures 5.9a and 5.9b). Yajima did not expressly disclose the second magnified region is located at the original position. Carpendale disclose a step pyramid lens that has multiple magnified region and is folded away from an original position relative to a compressed region and is located at the original position (pages 145 – 149 and Figure 5.37). Yajima did not expressly disclose second magnified region has magnification. Carpendale discloses plurality of magnified views in one image (Figures 5.9a and 5.9b and 5.37). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Yajima's system by applying a folding lens for magnification. One would be motivated to do so because this allow users to see multiple magnifications of the desired areas to efficiently examine the desired areas.

Regarding claims 26 – 29, claims 26 – 29 are similar in scope as to claims 7 – 10, thus the rejections for claims 7 – 10 hereinabove is applicable to claims 26 – 29.

Claims 17 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yajima et al. (US 6,523,024) in view of Dürsteler ("The digital magazine of InfoVis.net", 4/22/2002) and Baar et al. (US 2002/0044154) and Higgins et al. (US 2003/0052896) and Packingham et al. (US 6,985,865).

Regarding dependent claims 17 – 19, Yajima did not expressly disclose saving edits for subsequent recall and application, save edits as bookmarks, and applying bookmarks to edits. Packingham discloses a bookmark-management application saves the current URI, recall a bookmark, and edit a bookmark (column 15, lines 7 – 9). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Yajima's system to incorporate the principles of Packingham's system of saving edits as bookmarks to be able to recall bookmark and edit bookmark. One would be motivated to do so because to keep track of the history of user's actions.

(10) Response to Argument

Appellant's arguments with respect to claims 1 and 20 have been fully considered but they are not persuasive.

With respect to independent claim 1, appellant explains Yajima's system in Figure 18 of having a first image information **1018** and a second image information **1033a** showing the same level of magnification with details (page 14). Appellant further explains Yajima's system in Figure 19 of having the second image information **1033a** being magnified with details (page 15). However appellant argues that Yajima's first image information **1018** and second image information **1033a** pertain to a single layer (page 16) with the reasoning that the second image information **1033a** appears as an inset magnifier (page 15) and the first and second image information **1018, 1033a** simply present different levels of detail of the same original image or layer, and therefore does not teach different layers of the same original image. Examiner agrees that the first and second image information **1018, 1033a** present different levels of detail of the same original image however, the examiner maintains that the first and second image information **1018, 1033a** are different layers of the original image. Yajima teaches:

> "The information lens has a lens area in which the first image information is displayed in a form overlaid with a part of second information a focus and a focus area which indicates an object of retrieval of attribute information from the DB. In the case where the first image information is to be displayed in the form overlaid with the part of the second image information, the second image information is displayed in a form modified so that the correspondence thereof to the first image information is recognizable. With the overlay of the part of the second image

> information, a limited area of the first image information is displayed with information detailed more than its environs, thereby providing a function such as an information lens or magnifying lens for the first image information" (column 7, line 56 – column 8, line 2).

The claim limitation recites, "in response to receiving an indication to edit a region of said original image, distorting a portion of a first layer of said original image to produce a distorted image for said region, said distorted image including a magnified region having a magnification for said region" and "overlaying said distorted image on said region in a second undistorted layer of said original image to produce an overlaid image and displaying said overlaid image on said display screen to replace display of said original image, said distorted image at least partially surrounded by non-overlaid portions of said second undistorted layer in said overlaid image".

FIG. 18

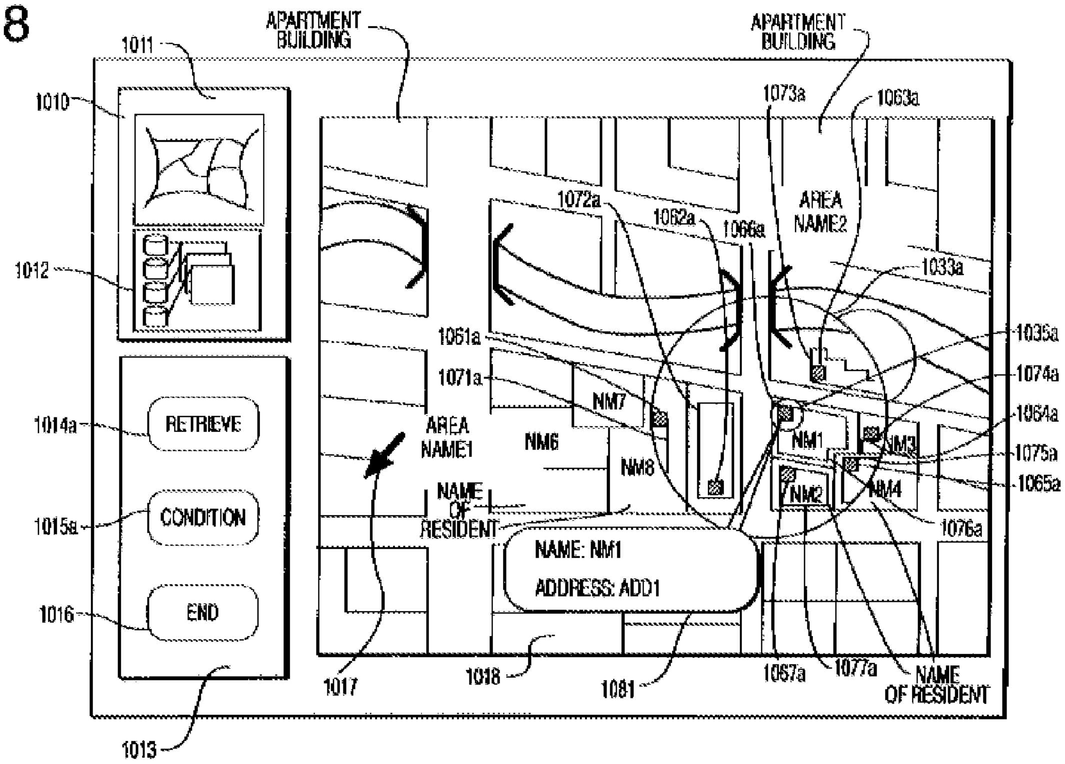

Figure 18 of Yajima shows reference number **1018** being the first image information and reference number **1033a** being the second image information. However in Figure 18, second image information **1033a** is not magnified, but shows more details in the circular region.

FIG. 19

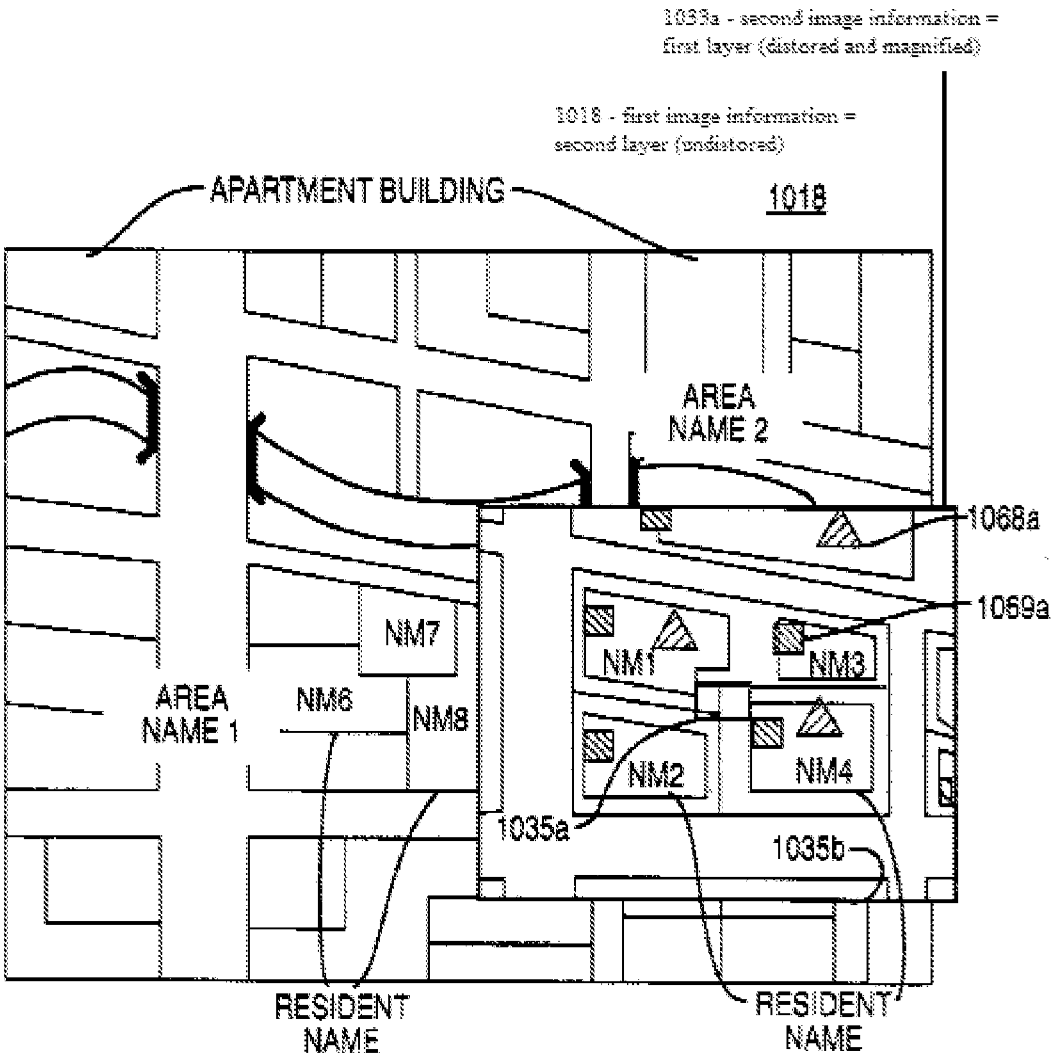
1033a - second image information =
first layer (distored and magnified)
1018 - first image information =
second layer (undistored)
APARTMENT BUILDING
1018
AREA NAME 2
1068a
1069a
NM7
AREA NAME 1
NM6
NM8
NM1
NM3
NM2
NM4
1035a
1035b
RESIDENT NAME
RESIDENT NAME

Figure 19 of Yajima shows reference number **1018** being the first image information and reference number **1033a** (added by the Examiner) being the second image information. Second image information **1033a** in Figure 19 is magnified and shows more details in the smaller rectangular region. Appellant agrees that the smaller rectangular region corresponds to reference number **1033a** of Figure 18 and is the second image information (page 15).

It is clear from Yajima that an information lens has a lens area that signifies the area for the second image information to be display, and therefore there is an indication to edit a region. The information lens would be the circular region corresponding to the second image information **1033a** in Figure 18 and the rectangular region corresponding to the magnified second image information **1033a** in Figure 19.

It is clear from Yajima that the second image information is overlaid on top of the first image information, and therefore there are at least two layers. In Figure 19 of Yajima, the second image information **1033a** is clearly shown to be overlaid on top of the first image information **1018** and therefor there are at least two layers. It is clear from Yajima that the details in the second image information have information corresponding to the first image information, and therefore the second image information is a different layer than the first image information. In Figure 18 of Yajima, the second image information **1033a** shows more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**. In Figure 19 of Yajima, the second image information **1033a** shows a magnified view and more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**.

It is clear from Yajima that the second image information is displayed in a form modified so that the correspondence thereof to the first image information is recognizable, and therefore there is at least a first layer that is distorted. In Figure 18 of Yajima, the second image information **1033a** shows more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**. In Figure 19 of Yajima, the second image information **1033a** shows a magnified view and more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**.

It is clear from Yajima, and appellant clearly points out that the second image information **1033a** is magnified with details (Figure 19), and therefore there is a first layer that is distorted that also includes a magnified region having a magnification. In Figure 19 of Yajima, the second image information **1033a** shows a magnified view and more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**.

It is clear from Yajima that the first image information is displayed in a form overlaid with a part of second information, and therefore there is an overlaying said distorted image on said region in a second undistorted layer to produce an overlaid image and displaying said overlaid image on said display screen to replace display of said original image. In Figure 19 of Yajima, the second image information **1033a** is clearly shown to be overlaid on top of the first image information **1018** and therefor there are at least two layers.

It is clear from Yajima that the first image information **1018** has portions that surround the second image information **1033a** wherein the portions that surround the second image information is not overlaid by the second image information (Figure 19), and therefore there is a distorted image at least partially surrounded by non-overlaid portions of said second undistorted layer in said overlaid image. In Figure 18 of Yajima, the first image area **1018** surrounds the second image information **1033a**. In Figure 19 of Yajima, at least the first image area **1018** surrounds the second image information **1033a**.

Finally, it is clear from Yajima, and appellant clearly points out, that the second image information **1033a** has a magnified view at least part of the first image information **1018** (Figure 19), and therefore there is a first image information and the second image information that are part of the same image. In Figure 19 of Yajima, the second image information **1033a** shows a magnified view and more detail of a region on the first image information **1018**, wherein the region of the first image information **1018** corresponding to the information lens to display the second image information **1033a**.

Since Yajima clearly has an information lens that signifies the area to for the second image information, the first image information and the second image information are part of the same image, and the first image information and the second image information are different layers since the second image information is magnified with details and overlaid on top of the first image information with portions of only the first image information surround the second image information, Yajima teaches the claimed limitation above. Examiner notes that a process for distort can be reasonable interpreted as a magnification process.

With respect to independent claim 1, appellant argues Higgins does not teach “upon completion of editing of said overlaid image, selectively propagating edits made to said first layer through to said second undistorted layer of said original image" with the reasoning that there is no word "distort" within Higgins (page 17). In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As discussed above, Yajima teaches a first image information that is undistorted and the second image information that is distorted. Higgins teaches:

> “Map image synchronization is a method whereby two map images can be made to show the same geographic region at all times, maintaining this synchronization even after one of the images is panned, zoomed, scrolled, or otherwise caused to display a different region. Whenever such a change occurs on one map, the system causes the same change to occur on the other map as well. In this way, the two images continue to display the same region, without the need of manually adjusting both maps. In addition the synchronization system allows annotations to be placed on either map at specified geographic locations, and causes a matching annotation to appear on the other map in the corresponding location" (paragraph 110).

One of the concepts of Higgins show two map images having the same geographic regions to maintain synchronization even when one of the images is panned, zoomed, or scrolled (paragraph 110). Another one of the concepts of Higgins show that annotations can be placed on one map and the annotations is propagated on other maps corresponding to the same geographical area of each map (paragraph 110). In general, when a change occurs on one map, the same change occurs on other maps or, specifically, when a change occurs on one map, the same change occurs on other maps having the same geographical location. Two maps displaying different data but having the same geographical location are layers of an area having the same geographical location. An annotation of an image can be reasonably interpreted as a distortion of an image since the image itself has been changed to be different than what the image was before the change. A simple and general edit to an image causes a distortion to an image. Therefore, the combination of Yajima's system with the teachings of Higgins' reads on the claimed limitation, "upon completion of editing of said overlaid image, selectively propagating edits made to said first layer through to said second undistorted layer of said original image". If annotations were made to the first image information, the same annotations would occur in the second image information in the same geographical location. The same is true if annotations were made to the second image information, the same annotations would occur in the first image information in the same geographical location.

Independent claim 20 stands and falls together with claim 1.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jeffrey J. Chow /Jeffrey J Chow/

Examiner, Art Unit 2628

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